

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:**Claim 1. (Canceled)**

Claim 2. (New) A eukaryotic cell *in vitro* comprising a vector, said vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, wherein said vector is non-homologously integrated into the genome of said eukaryotic cell in such a way that a fusion transcript comprising the nucleotide sequence encoding the selectable marker and/or the unpaired splice donor and one or more exons of an endogenous gene is expressed under the control of said first or said second promoter and wherein said unpaired splice donor is spliced to a splice acceptor of said endogenous gene to produce said fusion transcript, and coding sequence in said endogenous gene is translated.

Claim 3. (New) A eukaryotic cell *in vitro* comprising a vector, said vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, wherein said vector is non-homologously integrated into the genome of said eukaryotic cell in such a way that a fusion transcript comprising the nucleotide sequence encoding the selectable marker and/or the unpaired splice donor and one or more exons of an endogenous gene is expressed under the control of said first or said second promoter, and coding sequence in said endogenous gene is translated.

Claim 4. (New) The eukaryotic cell of claim 2 or 3, wherein said cell is an animal cell.

Claim 5. (New) The eukaryotic cell of claim 4, wherein said animal cell is selected from the group consisting of a mammalian cell, an insect cell, an avian cell, an annelid cell, an amphibian cell, a reptilian cell, and a fish cell.

Claim 6. (New) The eukaryotic cell of claim 4, wherein said animal cell is a mammalian cell.

Claim 7. (New) The eukaryotic cell of claim 6, wherein said mammalian cell is a human cell.

Claim 8. (New) The eukaryotic cell of claim 2 or 3, wherein said cell is a plant cell.

Claim 9. (New) The eukaryotic cell of claim 2 or 3, wherein said cell is a fungal cell.

Claim 10. (New) The eukaryotic cell of claim 9, wherein said fungal cell is a yeast cell.

Claim 11. (New) The eukaryotic cell of claim 4, wherein said cell is an isolated cell.

Claim 12. (New) A vector comprising (i) a first promoter that functions in a eukaryotic cell operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, said vector further comprising one or more transposition signals.

Claim 13. (New) A vector comprising (i) a first promoter that functions in a eukaryotic cell operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, said vector further comprising one or more viral origins of replication.

Claim 14. (New) A vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, said vector further comprising one or more viral replication factor genes.

Claim 15. (New) The vector of claim 13, wherein said viral origin of replication is selected from the group consisting of Epstein Barr virus ori P and SV40 ori.

Claim 16. (New) A vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, said vector further comprising genomic DNA.

Claim 17. (New) A eukaryotic cell *in vitro* comprising the vector of claim 12.

Claim 18. (New) A eukaryotic cell *in vitro* comprising the vector of claim 13.

Claim 19. (New) A eukaryotic cell *in vitro* comprising the vector of claim 14.

Claim 20. (New) A eukaryotic cell *in vitro* comprising the vector of claim 16.

Claim 21. (New) The cell of any one of claims 17-20, wherein said cell is an isolated cell.

Claim 22. (New) A library of eukaryotic cells *in vitro* comprising a vector, said vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, wherein said vector is non-homologously integrated into the genome of said eukaryotic cell in such a way that a fusion transcript comprising the nucleotide sequences encoding the selectable marker and/or the unpaired splice donor and one or more exons of an endogenous gene is expressed under the control of said first or said second promoter and wherein said unpaired splice donor is spliced to a splice acceptor of said endogenous gene to produce said fusion transcript, and coding sequence in said endogenous gene is translated.

Claim 23. (New) A library of eukaryotic cells *in vitro* comprising the vector of any of claims 12-14 or 16.

Claim 24. (New) A method for increasing protein expression of an endogenous gene in a eukaryotic cell *in vitro*, said method comprising introducing a vector into said eukaryotic cell, said vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor, wherein said vector is non-homologously integrated into the genome of said eukaryotic cell in such a way that a fusion transcript comprising the nucleotide sequence encoding the selectable marker and/or the unpaired splice donor and one or more exons of an endogenous gene is expressed under the control of said first or said second promoter and wherein said unpaired

splice donor is spliced to a splice acceptor of said endogenous gene to produce said fusion transcript, and coding sequence in said endogenous gene is translated.

Claim 25. (New) A method for increasing protein expression of an endogenous gene in a eukaryotic cell *in vitro*, said method comprising introducing a vector into said eukaryotic cell, said vector comprising (i) a first promoter operably linked to a nucleotide sequence encoding a selectable marker, wherein said nucleotide sequence lacks a functional polyadenylation signal, and (ii) a second promoter operably linked to an unpaired splice donor into said cell, wherein said vector is non-homologously integrated into the genome of said eukaryotic cell in such a way that a fusion transcript comprising the nucleotide sequence encoding the selectable marker and/or the unpaired splice donor and one or more exons of an endogenous gene is expressed under the control of said first or said second promoter, and coding sequence in said endogenous gene is translated.

Claim 26. (New) The vector of claim 2 or 3, wherein said promoter is selected from the group consisting of a CMV immediate early gene promoter, an SV40 T antigen promoter, a tetracycline-inducible promoter, and a β -actin promoter.

Claim 27. (New) The vector of claim 2 or 3, wherein said selectable marker is selected from the group consisting of neomycin, hypoxanthine phosphoribosyl transferase, puromycin, dihydroorotate, glutamine synthetase, histidine D, carbamyl phosphate synthase, dihydrofolate reductase, multidrug resistance 1, aspartate transcarbamylase, xanthine-guanine phosphoribosyl transferase, adenosine deaminase, and thymidine kinase.